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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/837,102	04/18/2001	Hideo Nobuhara	13409.3US01	9004

7590

05/18/2006

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EXAMINER

BOYD, JENNIFER A

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 05/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/837,102

Applicant(s)

NOBUHARA ET AL.

Examiner

Jennifer A. Boyd

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-3, 5-10, 14-15, 19-24 and 26-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-3, 5-10, 14-15, 19-24 and 26-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The Applicant's Amendments and Accompanying Remarks, filed February 24, 2006 and June 25, 2005 respectively, have been entered and have been carefully considered. Claims 2 and 3 are amended and claims 2 – 3, 5 – 10, 14 – 15, 19 – 24, 26 and 27 are pending. In view of Applicant's amendments to claims 2 and 3, the Examiner withdraws the 35 USC 112, 2nd paragraph rejection as detailed in the previous Office Action. The invention as currently claimed is unpatentable for reasons herein below.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. Claims 2 – 3, 5 – 10, 14 – 15, 19 – 24 and 26 - 27 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Terakawa et al. (US 5,753,330) in view of Bird (US 3,802,429) and further in view of Wada (EP 313,920). The details of the rejection can be found in the Office Action dated December 21, 2004. The rejection is maintained.

The Applicant has amended claims 2 and 3 to require that the thermoplastic fiber is direction aligned "along the machine direction". It should be noted that it has been discussed in the previous Office Action that Bird teaches that a major portion of the filaments lie in a planes that are substantially parallel to the conveying direction of the moving belt (column 5, lines 5 – 10); the Examiner equates this to machine direction.

Response to Arguments

4. Applicant's arguments filed June 21, 2005 have been fully considered but they are not persuasive.

Applicant argues that the rejection relies on Bird for teaching the directional alignment of fibers and submits that Bird is directed to a surgical mask and not suitable for combination with the filters of Wada or Terakawa. In response to applicant's argument that Bird is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, although Bird is a considered surgical mask and Wada and Terakawa are filters, Bird functions as a filter when being used as a surgical mask. Bird is directed to a surgical mask and is concerned about making an improved mask with superior filtration efficiency (Bird, columns 1 – 2). Therefore, although Bird is not a cylindrical filter and does not suggest wrapping in twill formation, Bird is particularly relevant to filtration and to the particular problem with which the Applicant is concerned. As discussed in the rejection, Bird teaches that a major portion of the filaments lie in a planes that are substantially parallel to the conveying direction of the moving belt (column 5, lines 5 – 10). Bird teaches that the configuration of the nonwoven results in a maximum utilization of the filaments in the fabric to form fiber free openings in the web and these openings are of a sufficiently small size to prevent passage of bacteria through the web (column 5, lines 20 – 25). The Examiner has relied on Bird solely to teach motivation for machine directional

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alignment of the filaments; one would have been motivated to use machine directionally aligned fibers to increase the filtration efficiency. Applicant argues that Bird's purpose is to produce a low air resistance mask while the twill form of Wada would be directly contrary to the purpose of Bird's invention. It should be noted that Bird discusses air resistance as a property of the material and not a result of the configuration of the material. Therefore, the twill configuration would not be contrary to the intention of Bird.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A. Boyd whose telephone number is 571-272-1473. The examiner can normally be reached on Monday thru Friday (8:30am - 6:00pm).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jennifer Boyd
May 10, 2006



TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700